

ABSTRACT OF THE DISCLOSURE

A dual-doctor blade assembly that can accurately meter ink delivery to the anilox cells on the anilox roll of a flexographic printing system. The system utilizes a retractable dual-blade configuration in conjunction with an ink chamber and a gap between the lower doctor blade and the anilox roll. The entire configuration can be adjusted for anilox rolls of various diameters. The upper blade in this system contacts the anilox roll at a point after its rotation through the application tray and scrapes ink from the surface of the anilox roll directly into the ink chamber. As the chamber fills with ink, the hydraulic pressure created by the spinning of the anilox roll increases to a point where the anilox cells are filled to the appropriate volume. The gap created between the lower doctor blade and the anilox roll serves two functions. As ink is drawn up on the anilox roll and in the anilox cells from the application tray, the gap allows ink to pass into the area of the anilox roll that is exposed to the ink chamber. The gap then also allows ink to be expelled from the chamber when a critical hydraulic pressure inside the chamber is reached. In this way, the application of the appropriate volume of ink into the cells is self-regulating, saving time and maintenance costs.